

## SIMPLOT COMMUNICATION

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# **AgriBusiness**

### **AGRIBUSINESS**

**To:** Kirk Adkins, Environmental Manager January 29, 2008

From: Howard Skidmore, Process Engineer

Subject: DEQ Information Request - Sulfuric Acid Production

### Goal:

The DEQ has requested information concerning the calculation for production at the 300 and 400 Sulfuric Acid plants.

### **Results:**

#### 300 Sulfuric Acid Plant

The production rate at the 300 Sulfuric Acid Plant for the daily production report is based on sulfuric acid flow. The sulfuric acid product flow to storage and the sulfuric acid consumed in the Ammsox process (SO<sub>2</sub> scrubbing) is summed over the 24 hour period to determine a total sulfuric acid volume. This volume is multiplied by a unit conversion efficiency factor to covert to mass of sulfuric acid produced.

The instruments used in this process are Magnetic Flow meters. They have a documented estimated accuracy of  $\pm 0.2\%$ . The flow meters are checked for accuracy twice per year, with zero flow verification. Also, the capability of the magnet is checked twice per year.

### **400 Sulfuric Acid Plant**

The production rate at the 400 Sulfuric Acid Plant for the daily production report is based on sulfur consumption. The quantity of sulfur consumed is summed for the 24 hour period. This value is multiplied by a unit conversion efficiency factor to convert from mass of sulfur to mass of sulfuric acid produced.

The instrument used in this process is a Coriolis Mass Flow meter. They have a documented estimated accuracy of  $\pm 0.1\%$ . No tests are performed on this instrument.